

INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP2004/007388

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 F23D14/24 F23D14/76

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 F23D C23C C22C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	EP 1 221 572 A (TOPSOE HALDOR AS) 10 July 2002 (2002-07-10) column 1, paragraph 1 - paragraph 3 column 3, paragraph 25 - column 5, paragraph 35; figures 1,2	1-6, 8-10, 12-14
Y	WO 02/42686 A (MUSCHELKNAUTZ SEBASTIAN ; TAUTZ HANNO (DE); HEISEL MICHAEL (DE); LINDE) 30 May 2002 (2002-05-30) page 1, paragraph 1 - page 2, paragraph 1 page 10, paragraph 4 - page 1, paragraph 3; figure 1 ----- -/--	1-6, 8-10, 12-14

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

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Date of the actual completion of the international search

5 October 2004

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PCT/EP2004/007388

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5 496 170 A (PRIMDAHL IVAR I ET AL) 5 March 1996 (1996-03-05) column 1, line 9 - line 34 column 3, line 8 - column 4, line 16; figure	1-4, 8-10, 12-14
Y	US 2003/029528 A1 (MUMFORD JAMES DIRICKSON ET AL) 13 February 2003 (2003-02-13) column 1, paragraph 2 - paragraph 3 column 2, paragraph 18 - column 5, paragraph 29	1-3,5,6, 8-10, 12-14
Y	US 5 989 491 A (KIDA TADANORI ET AL) 23 November 1999 (1999-11-23) column 1, paragraph 3 - paragraph 5 column 2, paragraph 9 - paragraph 12	1,3-6, 8-10, 12-14
Y	US 2002/079023 A1 (ALSTRUP IB ET AL) 27 June 2002 (2002-06-27) column 1, paragraph 3 - paragraph 5 column 2, paragraph 9 - paragraph 12	1-3,5,6, 8-10, 12-14
A	US 6 322 351 B1 (CHRISTENSEN PETER SEIER ET AL) 27 November 2001 (2001-11-27) the whole document	1
A	US 6 193 173 B1 (MEYER ANNIE ET AL) 27 February 2001 (2001-02-27) the whole document	1

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP2004/007388

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 1221572	A	10-07-2002	CA 2366170 A1	04-07-2002
			EP 1221572 A2	10-07-2002
			JP 2002235908 A	23-08-2002
			US 2002086257 A1	04-07-2002
			ZA 200200050 A	03-07-2002
		PRINDAHL		
WO 0242686	A	30-05-2002	DE 10109266 A1	29-05-2002
			AU 5067102 A	03-06-2002
			DE 10103535 A1	29-05-2002
			WO 0242686 A1	30-05-2002
			EP 1337790 A1	27-08-2003
			US 2004067461 A1	08-04-2004
		RANKE, et al		
US 5496170	A	05-03-1996	DK 197491 A	07-06-1993
			AT 135811 T	15-04-1996
			AU 655340 B2	15-12-1994
			AU 2991792 A	10-06-1993
			CA 2084337 A1	07-06-1993
			CN 1074024 A, B	07-07-1993
			DE 69209243 D1	25-04-1996
			DE 69209243 T2	25-07-1996
			EP 0545440 A2	09-06-1993
			ES 2087410 T3	16-07-1996
			JP 3509888 B2	22-03-2004
			JP 5256420 A	05-10-1993
			NZ 245336 A	26-10-1994
			PL 296849 A1	26-07-1993
			RU 2091668 C1	27-09-1997
			ZA 9209431 A	28-05-1993
US 2003029528	A1	13-02-2003	CA 2452097 A1	20-02-2003
			EP 1412454 A1	28-04-2004
			WO 03014263 A1	20-02-2003
US 5989491	A	23-11-1999	JP 9279287 A	28-10-1997
			JP 10130747 A	19-05-1998
			GB 2311997 A	15-10-1997
US 2002079023	A1	27-06-2002	AT 215623 T	15-04-2002
			AU 744761 B2	07-03-2002
			AU 8607698 A	01-04-1999
			CN 1219607 A	16-06-1999
			DE 69804559 D1	08-05-2002
			DE 69804559 T2	17-10-2002
			DK 903424 T3	22-07-2002
			EA 1169 B1	30-10-2000
			EP 0903424 A1	24-03-1999
			ES 2173535 T3	16-10-2002
			JP 11172473 A	29-06-1999
			NO 984240 A	22-03-1999
			NZ 331958 A	29-09-1999
			TW 434326 B	16-05-2001
US 6322351	B1	27-11-2001	AU 755430 B2	12-12-2002
			AU 4759299 A	23-03-2000
			CA 2282014 A1	15-03-2000
			CN 1249414 A	05-04-2000
			DE 69908267 D1	03-07-2003

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP2004/007388

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 6322351	B1	DE 69908267 T2	08-04-2004
		EP 0987492 A1	22-03-2000
		JP 2000186806 A	04-07-2000
		KR 2000023143 A	25-04-2000
		NO 994449 A	16-03-2000
		NZ 337738 A	30-03-2001
		TW 403821 B	01-09-2000
US 6193173	B1	FR 2779806 A1	17-12-1999
		BR 9902706 A	02-05-2000
		DE 69910681 D1	02-10-2003
		DE 69910681 T2	08-07-2004
		EP 0965792 A1	22-12-1999
		JP 2000035206 A	02-02-2000